

WHAT IS CLAIMED IS:

1 1. A method for controlling power in a communication system, comprising:
2 determining a block error rate (BLER) based on data blocks received on a first
3 transport channel and data blocks of at least a second transport channel; and
4 determining a reference signal-to-interference (SIR) value corresponding to the
5 first transport channel based on the BLER and a target BLER for the first transport
6 channel.

1 2. The method of claim 1, wherein data blocks of at least the second transport
2 channel are only considered for determining the BLER while data blocks are not
3 received on the first transport channel.

1 3. The method of claim 1, wherein error rate information corresponding to the
2 data blocks of the at least second transport channel is weighted according to at least
3 one of channel coding, a code rate, rate matching, and a current SIR of the first and
4 second transport channels.

1 4. The method of claim 1, wherein the BLER is determined according to cyclic
2 redundancy check (CRC) information.

1 5. The method of claim 1, wherein the reference SIR is adjusted so that the
2 BLER approaches the target BLER.

1 6. The method of claim 1, further comprising:
2 comparing the reference SIR value to at least one other reference SIR value
3 corresponding to another transport channel; and
4 selecting a maximum one of the compared reference SIR values to be used for
5 controlling power.

1 7. An apparatus for controlling power in a communication system,
2 comprising:

3 logic that determines a BLER based on data blocks received on a first transport
4 channel and data blocks of at least a second transport channel; and
5 logic that determines an SIR value corresponding to the first transport channel
6 based on the BLER and a target BLER for the first transport channel.

1 8. The apparatus of claim 7, comprising:
2 logic that only considers data blocks of at least the second transport channel, in
3 determining the BLER, while data blocks are not received on the first transport channel.

1 9. The apparatus of claim 7, comprising:
2 logic that assigns a weight to error rate information corresponding to the data
3 blocks of the at least second transport channel according to at least one of channel
4 coding, a code rate, rate matching, and a current SIR of the first and second transport
5 channels.

1 10. The apparatus of claim 7, comprising:
2 logic that determines the BLER according to CRC information.

1 11. The apparatus of claim 7, comprising:
2 logic that adjusts the reference SIR so that the BLER approaches the target
3 BLER.

1 12. The apparatus of claim 7, further comprising:
2 logic that compares the reference SIR value to at least one other reference SIR
3 value corresponding to another transport channel; and
4 logic that selects a maximum one of the compared reference SIR values to be
5 used for controlling power.

1 13. A method for controlling power in a communication system, comprising:
2 determining a common BLER of data blocks received on a plurality of transport
3 channels;
4 determining a common target BLER for the plurality of transport channels; and

5 determining a reference SIR value corresponding to the plurality of transport
6 channels based on the common BLER and the target BLER, said reference SIR being
7 used for controlling power.

1 14. An apparatus for controlling power in a communication system,
2 comprising:
3 logic that determines a common BLER of data blocks received on a plurality of
4 transport channels;
5 logic that determines a common target BLER for the plurality of transport
6 channels; and
7 logic that determines a reference SIR value corresponding to the plurality of
8 transport channels based on the common BLER and the target BLER, said reference
9 SIR being used for controlling power.

1 15. A method for controlling power in a communication system, comprising:
2 determining a BLER of data blocks received on a transport channel;
3 estimating a block rate (BLR) of the data blocks received on the transport
4 channel; and
5 determining a reference SIR value corresponding to the transport channel based
6 on the BLER, a target BLER, and the estimated BLR, said reference SIR being
7 considered for controlling power.

1 16. The method of claim 15, wherein the estimated BLR is used to maintain a
2 constant rate of change of the determined reference SIR value for different estimated
3 BLRs.

1 17. The method of claim 15, wherein the BLER is determined according to CRC
2 information.

1 18. The method of claim 15, wherein the reference SIR is adjusted so that the
2 BLER approaches the target BLER.

1 19. The method of claim 15, wherein the reference SIR is only considered for
2 controlling power if the estimated BLR corresponds to at least a minimum channel
3 excitation level.

1 20. The method of claim 19, wherein the channel excitation level is determined
2 based on a product of the estimated BLR and the target BLER.

1 21. The method of claim 15, further comprising:
2 comparing the reference SIR value to at least one other reference SIR value
3 corresponding to another transport channel; and
4 selecting a maximum one of the compared reference SIR values to be used for
5 controlling power.

1 22. An apparatus for controlling power in a communication system,
2 comprising:
3 logic that determines a BLER of data blocks received on a transport channel;
4 logic that estimates a BLR of the data blocks received on the transport channel;
5 and
6 logic that determines a reference SIR value corresponding to the transport
7 channel based on the BLER, a target BLER, and the estimated BLR, said reference
8 SIR being considered for controlling power.

1 23. The apparatus of claim 22, comprising:
2 logic that uses the estimated BLR to maintain a constant rate of change of the
3 determined reference SIR value for different estimated BLRs.

1 24. The apparatus of claim 22, comprising:
2 logic that determines the BLER according to CRC information.

1 25. The apparatus of claim 22, comprising:
2 logic that adjusts the reference SIR so that the BLER approaches the target
3 BLER.

1 26. The apparatus of claim 22, comprising:
2 logic that only considers the reference SIR for controlling power if the estimated
3 BLR corresponds to at least a minimum channel excitation level.

1 27. The apparatus of claim 26, comprising:
2 logic that determines the channel excitation level based on a product of the
3 estimated BLR and the target BLER.

1 28. The apparatus of claim 22, further comprising:
2 logic that compares the reference SIR value to at least one other reference SIR
3 value corresponding to another transport channel; and
4 logic that selects a maximum one of the compared reference SIR values to be
5 used for controlling power.

1 29. A method for controlling power in a communication system, comprising:
2 adjusting a reference SIR value downward incrementally;
3 monitoring at least one transport channel associated with the reference SIR for
4 block errors; and
5 setting an initial reference SIR value for each of the at least one transport
6 channels to the incrementally adjusted reference SIR value when a predetermined
7 number of errors are received cumulatively on any of the at least one transport
8 channels..

1 30. An apparatus for controlling power in a communication system,
2 comprising:
3 logic that adjusts a reference SIR value downward incrementally;
4 logic that monitors at least one transport channel associated with the reference
5 SIR for block errors; and
6 logic that sets an initial reference SIR value for each of the at least one transport
7 channels to the incrementally adjusted reference SIR value when a predetermined

- 8 number of errors are received cumulatively on any of the at least one transport
- 9 channels.